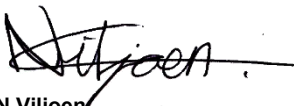





Mining And Surface Certification (Pty) Ltd

2015/021934/07

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

IA CERTIFICATE	MASC S/21-8334 X	Issue	0
Issue Date	12 August 2021	Expiry Date	23 July 2024
*Based on Certificate No	IECEX EPS 20.0050X	Issue / Variations / Amendment	0
Requested by	Pepperl+Fuchs (Pty) Ltd, 8 Glen Eagle Office Park, Koorsboom Ave, Glen Marais, Kempton Park, 1619, South Africa		
Manufacturer	Pepperl+Fuchs SE Lilienthalstrasse 200, 68307 Mannheim Germany		
Description	The Tab-Ex Pro DZ2 WiFi and Tab-Ex Pro DZ2 WWAN are tablet computers for industrial applications in hazardous areas of Zone 2/22 with gaseous and dust atmospheres. Electrical data: 3.8 V, 7400 mAh Ambient temperature range: -20 °C ≤ Ta ≤ +55 °C		
Equipment	Intrinsically safe Tablet Computer	Type	Tab-Ex Pro DZ2 ****
MARKING: Original marking as per certificate * remains applicable. IA number to be added.	Type Ex Marking IA Number Warnings	Intrinsically safe Tablet Computer Tab-Ex Pro DZ2 **** Ex ic IIC T5 Gc Ex ic IIB T80°C Dc MASC S/21-8334 X See Base Certificate * and original marking	
Quality Assurance report (QAR) / Notification (QAN):	DE/PTB/QAR06.0008/16		
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	23 July 2024		
Compliance:	The equipment as described above has been allocated the rating Explosion Protected (Ex Rating) utilizing the SANS/IEC Standards: <ul style="list-style-type: none"> SANS (IEC) 60079-0: 2019 Explosive atmospheres - Part 0: Equipment - General Requirements SANS (IEC) 60079-11: 2012 Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i" 		
Special conditions of safe use "X":	<ul style="list-style-type: none"> See "Annex A" below 		
Conditions of manufacture:	<ul style="list-style-type: none"> See "Annex A" below 		
 N Viljoen TECHNICAL OFFICER		 D.P Visser TECHNICAL SPECIALIST	
<p>This certificate covers all units sold as long as the QAR/QAN remains valid. According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).</p>			

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above report
Any restrictions and conditions enforced by the chief inspector of mines or chief inspector of factories
Any relevant requirements of the MHS Act.

/ ANNEX A...

This certificate may only be reproduced in full.
This certificate is not transferable and remains the property of the issuing body

Mining And Surface Certification (Pty) Ltd
Unit 5 Lelyta Park, 45 Jurg Ave, Hennospark Ext 87
Centurion, 0157

IA CERTIFICATE: MASC S/21-8334 X

Equipment: Intrinsically safe Tablet Computer

ANNEX A

This document is based on and must be read in conjunction with certificate IECEx EPS 20.0050X.	
Description (According to Base Certificate *)	
"Refer to description in Base Certificate * (and any applicable schedules/issues/variatioins)."	
Standard compliance	See Base Certificate *
Special conditions of safe use ("X")	<ul style="list-style-type: none"> • Before entering the hazardous location, the device shall be inspected for signs of damage on the enclosure. If damage is visible do not use the device in the hazardous location until it is repaired by an authorized service center. • The device enclosure is tested against the low impact energy for Group II and III. • The device must be protected from excessive UV light exposure. • Before entering the hazardous location, the conductive coating on the Ex-protective case shall be inspected. If the coating is removed or damaged for more than 2000mm² (~50mm diameter, contiguous) the rear cover must be withdrawn from use in the hazardous locations. • The device shall not be used in close proximity to processes producing high electrostatic charges. • Charging and wired data connection via USB and POGO port (Keyboard dock port) is only allowed in ordinary (non-hazardous) locations. • Battery pack or SD/SIM-Card replacement is only allowed in ordinary (non-hazardous) locations. • It must be ensured that the power plug used fulfills SELV or PELV requirements with an Um of 10V. • Intrinsically safe audio accessory certified for use in hazardous locations must match with the entity parameter of the earphone jack. • Earphone jack output parameter: Uo = 3.0 V / Io = 250 mA / Po = 150 mW / Co = 7 µF / Lo = 1500 µH • Earphone jack input parameter: Ui = 3.0 V / Ii = 0 mA / Pi = 0 mW / Ci = 1 µF / Li = 1 µH
Conditions of manufacture	<ul style="list-style-type: none"> • None
Conditions of Certification	<ul style="list-style-type: none"> • This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate. • As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date). • The apparatus must be additionally marked with the MASC marking details above. • This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date. • The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate. • The certification on which this IA Certificate is based must remain valid. • The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged. • The Ex quality assurance notification/report for the equipment must remain valid.
Conclusion:	<ul style="list-style-type: none"> • From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate *. • The routine tests for production units according to the Base Certificate * must be complied with (if applicable).

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practices



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx EPS 20.0050X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-07-24

Applicant: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Equipment: **Intrinsically safe Tablet Computer Tab-Ex Pro DZ2 ******

Optional accessory:

Type of Protection: **intrinsic safety**

Marking: Ex ic IIC T5 Gc
Ex ic IIIB T80°C Dc

Approved for issue on behalf of the IECEx
Certification Body:

Holger Schaffer

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





IECEX Certificate of Conformity

Certificate No.: **IECEX EPS 20.0050X**

Page 2 of 3

Date of issue: 2020-07-24

Issue No: 0

Manufacturer: **ecom instruments GmbH**
Industriestrasse 2
97959 Assamstadt
Germany

Additional manufacturing locations: **Pepperl+Fuchs Manufacturing Inc.**
502 Cane Island Parkway
Katy, Texas 77494
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/EPS/ExTR20.0051/00](#)

Quality Assessment Reports:

[DE/PTB/QAR06.0008/11](#)

[US/UL/QAR07.0005/15](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx EPS 20.0050X**

Page 3 of 3

Date of issue: 2020-07-24

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Tab-Ex Pro DZ2 WiFi and Tab-Ex Pro DZ2 WWAN are tablet computers for industrial applications in hazardous areas of Zone 2/22 with gaseous and dust atmospheres.

Electrical data: 3.8 V, 7400 mAh

Ambient temperature range: $-20\text{ }^{\circ}\text{C} \leq T_a \leq +55\text{ }^{\circ}\text{C}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

Before entering the hazardous location the device shall be inspected for signs of damage on the enclosure. If damage is visible do not use the device in the hazardous location until it is repaired by an authorized service center.

The device enclosure is tested against the low impact energy for Group II and III.

The device must be protected from excessive UV light exposure.

Before entering the hazardous location the conductive coating on the Ex-protective case shall be inspected. If the coating is removed or damaged for more than 2000mm² (~50mm diameter, contiguous) the rear cover must be withdrawn from use in the hazardous locations.

The device shall not be used in close proximity to processes producing high electrostatic charges.

Charging and wired data connection via USB and POGO port (Keyboard dock port) is only allowed in ordinary (non-hazardous) locations.

Battery pack or SD/SIM-Card replacement is only allowed in ordinary (non-hazardous) locations.

It must be ensured that the power plug used fulfills SELV or PELV requirements with an Um of 10V.

Intrinsically safe audio accessory certified for use in hazardous locations must match with the entity parameter of the earphone jack.

Earphone jack output parameter: $U_o = 3.0\text{ V} / I_o = 250\text{ mA} / P_o = 150\text{ mW} / C_o = 7\text{ }\mu\text{F} / L_o = 1500\text{ }\mu\text{H}$

Earphone jack input parameter: $U_i = 3.0\text{ V} / I_i = 0\text{ mA} / P_i = 0\text{ mW} / C_i = 1\text{ }\mu\text{F} / L_i = 1\text{ }\mu\text{H}$